Crane Scales

A crane scale is a digital weighing instrument that hangs between a lifting hook and the load and measures weight in tension through an internal load cell, typically from 500 lb to 20,000 lb capacity with 0.1% resolution. It is used wherever a load is lifted rather than set down — scrap and steel yards, fabrication shops, rigging crews and marine work.

Crane scale capacity selection

Application	Typical capacity	Typical readability	Notes
Workshop, engine hoists, small assemblies	1,000 lb	0.5 lb	Battery powered, hook-mount
Fabrication, pipe and plate handling	2,000–5,000 lb	1–2 lb	Wireless remote recommended
Scrap, recycling, steel service centers	10,000 lb	5 lb	NTEP models available
Heavy industrial and marine lifting	20,000 lb+	10 lb	Load-pin or dynamometer style

Certification and compliance

- Authorized A&D Weighing dealer. Sold as an authorized dealer since 1998, so every unit carries the full manufacturer warranty and factory firmware — not grey-market stock.
- NIST-traceable calibration certificate. Any instrument can ship with a calibration certificate produced in our Cypress, Texas lab using mass standards traceable to NIST, with as-found and as-left values recorded.
- NTEP legal-for-trade options. Models in this category are available with an NTEP Certificate of Conformance evaluated against NIST Handbook 44, ready for sealing by your state weights-and-measures authority.
- ASTM E617 / OIML R111 test weights. Verification weights are supplied in ASTM Class 1–6 or OIML E2–M3 tolerances, sized so the standard's tolerance stays inside one third of the scale's smallest division.
- In-house repair & on-site service. Factory-trained technicians repair, adjust and re-certify weighing equipment in our own Texas workshop and on-site across the Houston metro.

Specification checklist

- Capacity with headroom. Size at least 25% above your heaviest routine lift so shock loading never drives the cell past its rating.
- Shackle and hook grade. Confirm the supplied hardware's working load limit matches the scale's capacity — the weakest link governs the lift.
- Remote display. A wireless remote lets the operator read the weight from a safe standoff distance instead of under a suspended load.
- Resolution. Most crane scales resolve to 1/2,000 to 1/5,000 of capacity. If you need finer than that, the load belongs on a floor scale.
- NTEP. Required whenever the weight sets a price. Sealing is done by your state after installation.

Frequently asked questions

How accurate is a digital crane scale?

A typical industrial crane scale is accurate to ±0.1% of full capacity — about ±10 lb on a 10,000 lb unit. Accuracy depends on letting the load stop swinging before reading and on verifying the scale annually with certified test weights.

What is the difference between a crane scale and a dynamometer?

Both measure tension. A crane scale is optimized for weighing a suspended load and usually reads in lb/kg with a large display; a dynamometer is built for measuring line pull and rigging forces and typically has a higher safety factor and force units.

Do crane scales need to be NTEP certified?

Only if the weight determines money changing hands — buying scrap, selling steel by weight, or billing freight. For internal process control, a non-NTEP crane scale is perfectly legal.

How often should a crane scale be calibrated?

Verify with a known test weight monthly, and have a full NIST-traceable calibration performed annually or after any overload event or drop.

Terminology

Accuracy	How close a displayed weight is to the sample's true mass. Accuracy is limited by readability, repeatability and linearity together, so a scale can never be more accurate than its specification sheet's worst of those three figures.
Calibration	Adjusting a scale's span so it reads a certified test weight correctly, documented with as-found and as-left values. Distinct from verification, which records a reading without changing anything.
Capacity	The maximum mass a scale is rated to weigh. Usable capacity is the rated capacity minus every container, fixture or platform that sits on the pan, because tare does not add capacity back.
Crane scale	A scale suspended from a hoist or crane hook that weighs a load in tension through a load cell or load pin. Rated in tons with a safety factor, and typically read at 1/2000 to 1/5000 of capacity.
Drift	A slow change in reading with no change in load, usually caused by temperature change, air movement, static, or a settling mechanical assembly rather than by an instrument fault.
Legal for trade	A device certified and sealed for use in commercial transactions where weight determines price. In the United States this requires an NTEP Certificate of Conformance and a seal from the state or local weights-and-measures authority.
Load cell	The transducer that converts force into an electrical signal. Strain-gauge cells output a few millivolts per volt of excitation and are used from bench scales up to truck scales.
NTEP	The National Type Evaluation Program, run by NCWM, which tests weighing devices against NIST Handbook 44 and issues a Certificate of Conformance with an accuracy class. Required for legal-for-trade use.

EK1200i.com — authorized A&D Weighing dealer since 1998. Calibration, repair and application support from Cypress, Texas.
Call 832-290-3120 · info@mnmscales.com · https://ek1200i.com/crane-scales